Connecting Patients to a Greater State of Health

New Jersey Health Information Technology

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January, 2012

The Condition of Healthcare

- The Population is Aging (Baby Boomers)
- Nursing, Physician and Other Clinical Shortages
- More than 51% of the US Population's healthcare is financed in some way by tax dollars (Medicare, Medicaid, Charity Care, Government Employees, Armed Services, Firefighters, Police, Teachers, Etc...)
- Healthcare IT adoption is 12 years behind other industries
- Today's healthcare information network for sharing clinical information is connect via phones and fax
- In New Jersey 60 – 70% of providers are still using paper-based medical records (NJHA Estimate)

"Where Wisdom Lives"

David Brooks
New York Times **Columnist**

"The average 56-year-old couple pays about $140,000 into the Medicare system over a lifetime and receives about $430,000 in benefits back. The program is also completely unaffordable. Medicare has unfinanced liabilities of more than $30 trillion. The Medicare trustees say the program is about a decade from insolvency. "

– *New York Times,* Monday June 6, 2011

Healthcare Transformation

Payment Transformation

Delivery of Care Transformation

Health Information Technology Transformation

1. Electronic Health Records (EHRs)
2. Health Information Organizations (HIOs)
3. Health Information Network (HIN)

Seeing Results

Primary Care Practices of Better Health Greater Cleveland

Practices that use electronic health records saw significantly higher achievement and improvement in meeting standards of care and outcomes in diabetes than practices using paper records.

--*NEJM*, September 1, 2011

- Nearly **51%** of patients in EHR practices received care that **met all of the endorsed standards.**

- Only **7%** of patients at paper-based practices **received this same level of care**– a difference of 44%.

- After accounting for differences in patient characteristics between EHR and paper-based practices, **EHR patients still received 35% more of the care standards.**

ABSTRACT

BACKGROUND

Available studies have shown few quality-related advantages of electronic health records (EHRs) over traditional paper records. We compared achievement of and improvement in quality standards for diabetes at practices using EHRs with those at practices using paper records. All practices, including many safety-net primary care practices, belonged to a regional quality collaborative and publicly reported
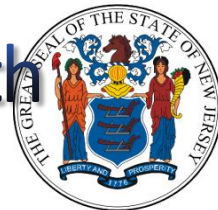
Primary Care Practices with Advanced Electronic Health Information Capacity by Country

Adoption of health information technology (IT) among primary care practices is highly variable across countries, with the United States lagging well behind other nations

Percent reporting at least 9 of 14 clinical IT functions*

Country	Percent
NZ	92
AUS	91
UK	89
NET	54
SWE	49
GER	36
US	26
NOR	19
FR	15
CAN	14
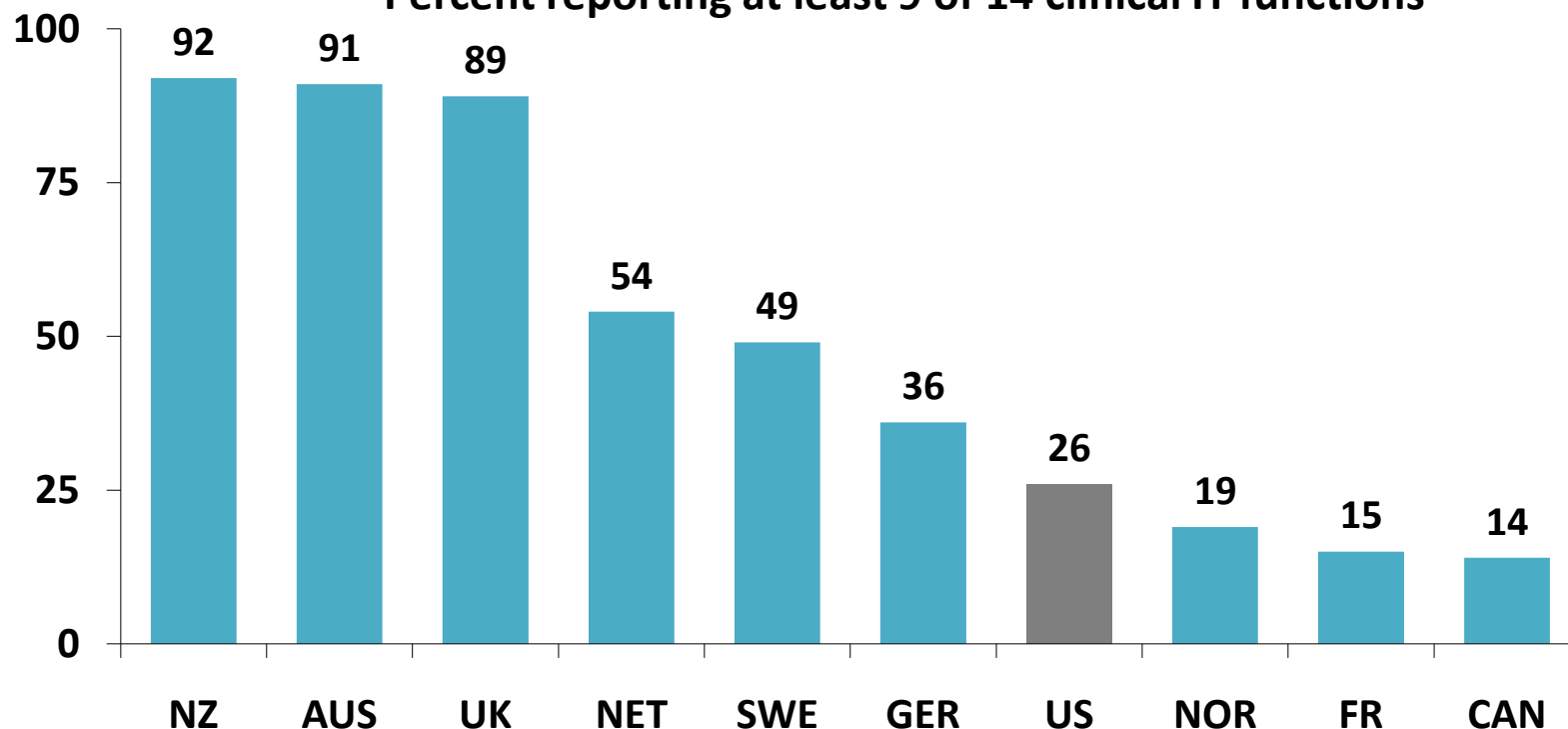
* Count of 14 functions includes: electronic medical record; electronic prescribing and ordering of tests; electronic access test results, Rx alerts, clinical notes; computerized system for tracking lab tests, guidelines, alerts to provide patients with test results, preventive/follow-up care reminders; and computerized list of patients by diagnosis, medications, due for tests or preventive care.
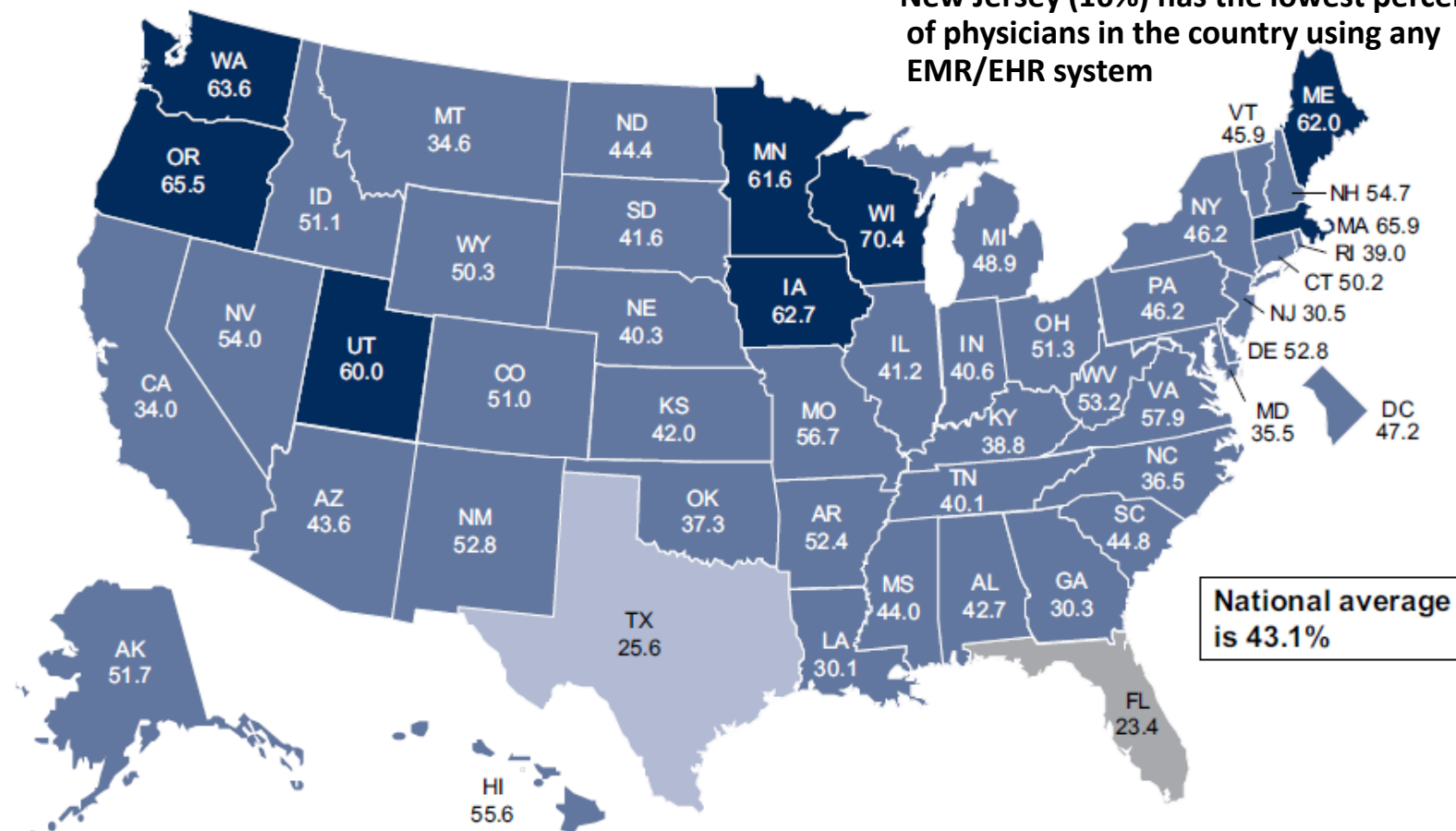
Percentage of Office-Based Physicians planning to apply for Meaningful Use Incentives*

New Jersey (31%) has a lower percentage of physicians potentially able to meet meaningful use core criteria when compared with national average

New Jersey (16%) has the lowest percent of physicians in the country using any EMR/EHR system

WA 63.6
OR 65.5
MT 34.6
ND 44.4
MN 61.6
WI 70.4
ID 51.1
SD 41.6
WY 50.3
MI 48.9
IA 62.7
NV 54.0
UT 60.0
CO 51.0
NE 40.3
IL 41.2
IN 40.6
OH 51.3
WV 53.2
VA 57.9
CA 34.0
KS 42.0
MO 56.7
KY 38.8
AZ 43.6
NM 52.8
OK 37.3
AR 52.4
TN 40.1
NC 36.5
SC 44.8
AK 51.7
TX 25.6
MS 44.0
AL 42.7
GA 30.3
LA 30.1
HI 55.6
FL 23.4
VT 45.9
ME 62.0
NH 54.7
NY 46.2
MA 65.9
RI 39.0
CT 50.2
NJ 30.5
DE 52.8
MD 35.5
DC 47.2
PA 46.2

National average is 43.1%

*Also includes office-based physicians who have EHR system capabilities to support eight Stage 1 Core Set meaningful use objectives

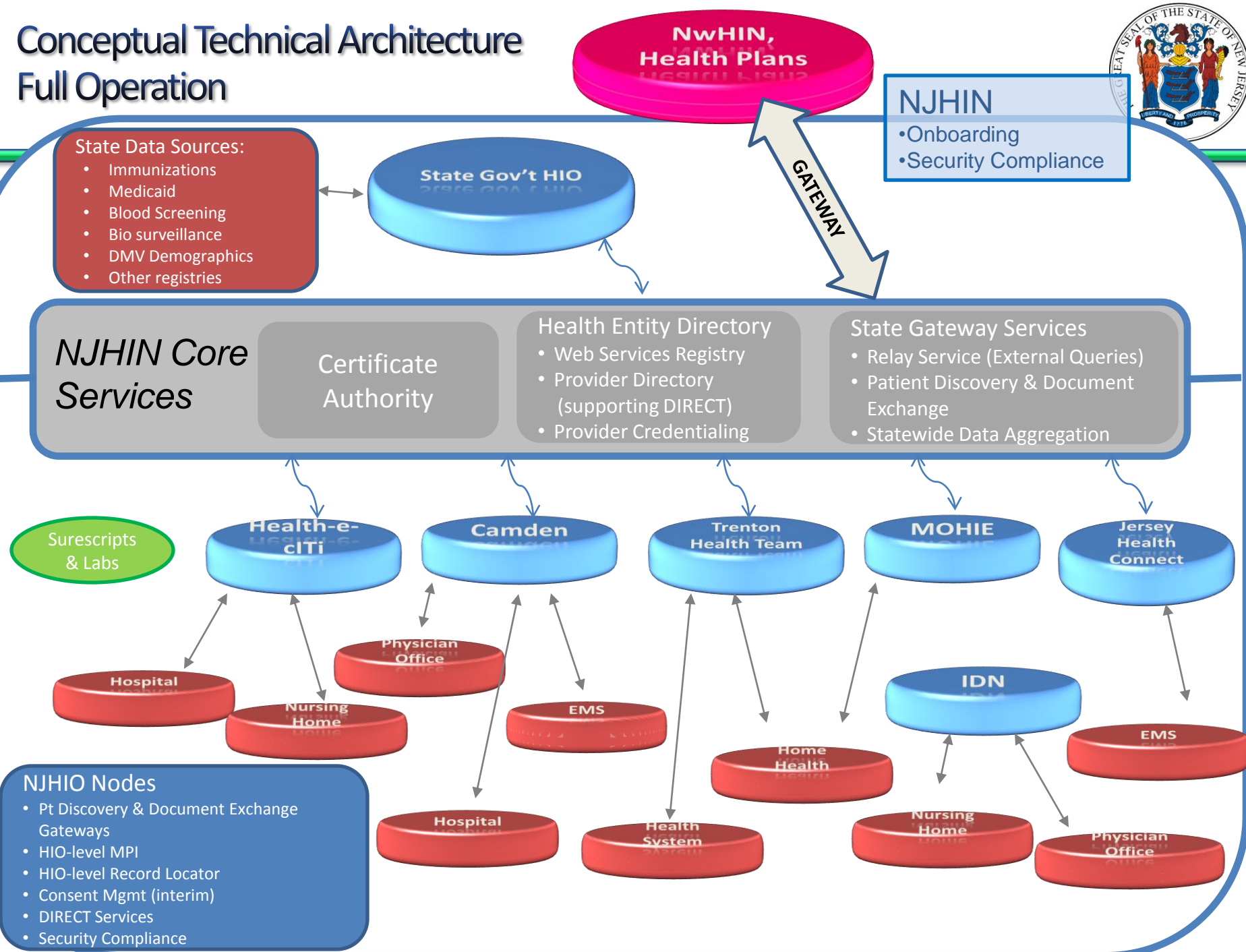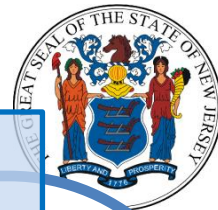# Conceptual Technical Architecture
Full Operation

NwHIN, Health Plans

NJHIN
- Onboarding
- Security Compliance

GATEWAY

State Data Sources:
- Immunizations
- Medicaid
- Blood Screening
- Bio surveillance
- DMV Demographics
- Other registries

State Gov't HIO

NJHIN Core Services

Certificate Authority

Health Entity Directory
- Web Services Registry
- Provider Directory (supporting DIRECT)
- Provider Credentialing

State Gateway Services
- Relay Service (External Queries)
- Patient Discovery & Document Exchange
- Statewide Data Aggregation

Surescripts & Labs

Health-e-cITi **Camden** **Trenton Health Team** **MOHIE** **Jersey Health Connect**

Hospital **Physician Office** **Nursing Home** **EMS** **IDN** **EMS**

Hospital **Health System** **Home Health** **Nursing Home** **Physician Office**

NJHIO Nodes
- Pt Discovery & Document Exchange Gateways
- HIO-level MPI
- HIO-level Record Locator
- Consent Mgmt (interim)
- DIRECT Services
- Security Compliance

HIOs and IDNs

Jersey Health Connect
Atlantic Health
Morristown Memorial, Overlook, Newton
CentraState
Children's Specialized Hospital
CJHIEP (Physician Organization)
Hackensack University Medical
Holy Name Medical Center
Hunterdon Healthcare
JFK Health System
Parker Memorial Home (LTC)
Robert Wood Johnson University Hospital
Robert Wood Johnson – Hamilton
Robert Wood Johnson- Rahway
Saint Barnabas Medical Center
Saint Clare's Health Services
Saint Peter's Healthcare System
Somerset Medical Center
Trinitas Regional Medical Center

Trenton Health Team
Capital Health System
St. Francis Medical Center
City of Trenton
FQHC - Henry J. Austin Health Center

Camden
Cooper
Lourdes
Virtua
Underwood
Kennedy
FQHC – Camcare / Project Hope
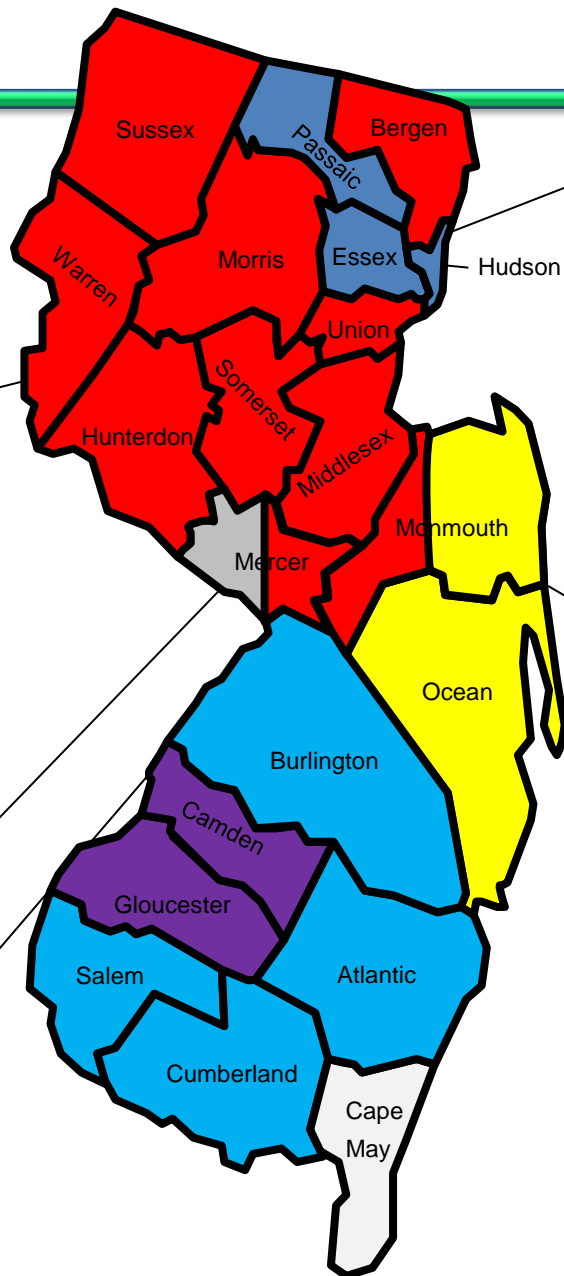
Health-e-cITi-NJ
Newark Beth Israel Medical Center
St. Michael's Medical Center
East Orange General Hospital
Meadowlands Hospital
Christ Hospital
University Hospital
St. Joseph's Healthcare System
Jersey City Regional Medical Center
FQHC - Newark Community Health Center

MOHIE
Bayshore Community Hospital
Community Medical Center
Jersey Shore University Medical Center
Kimball Medical Center
K. Hovnanian Children's Hospital
Monmouth Medical Center
Ocean Medical Center
Riverview Medical Center
Southern Ocean Medical Center
FQHC - Monmouth Family Health Center

IDNs
AtlantiCare Regional Medical Center
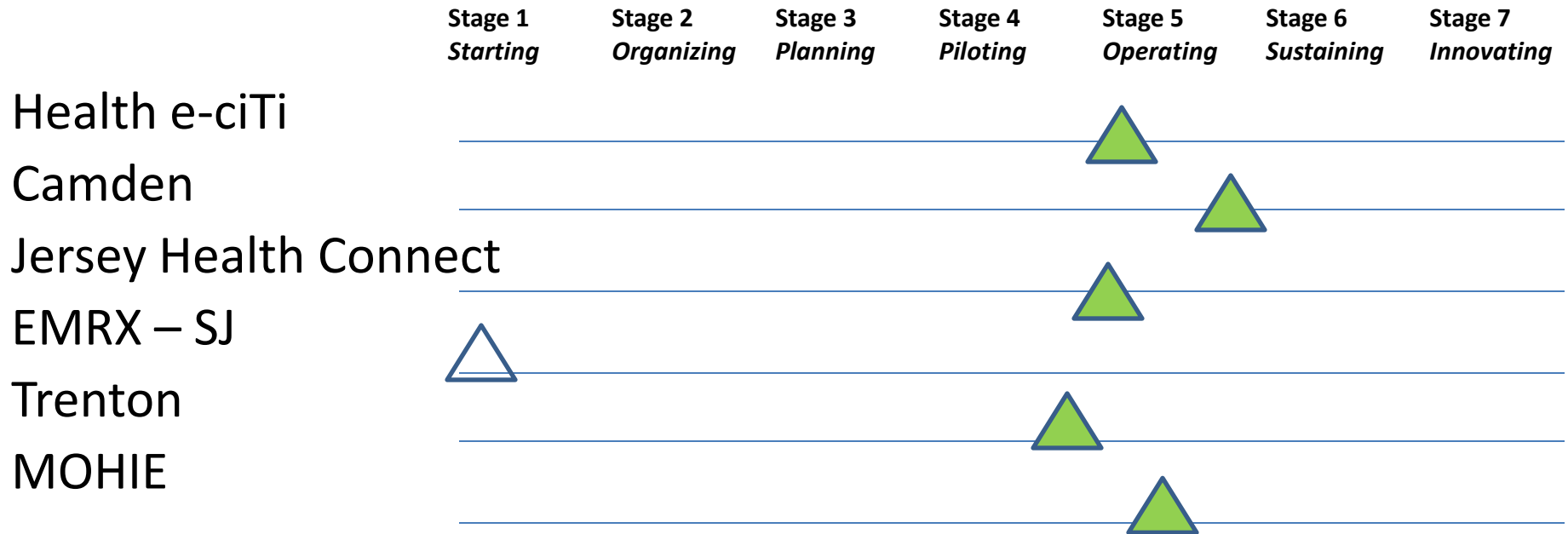Barnabas Healthcare System
South Jersey Health System
Virtua Health

Sussex
Passaic
Bergen
Warren
Morris
Essex
Hudson
Union
Somerset
Hunterdon
Middlesex
Monmouth
Mercer
Ocean
Burlington
Camden
Gloucester
Salem
Atlantic
Cumberland
Cape May

Meaningful Use / Exchanging Data – HIO Status

HIO Status

As of Oct 10, 2011

Stages of Health Information Organization*

	Stage 1 *Starting*	Stage 2 *Organizing*	Stage 3 *Planning*	Stage 4 *Piloting*	Stage 5 *Operating*	Stage 6 *Sustaining*	Stage 7 *Innovating*
Health e-ciTi					▲		
Camden						▲	
Jersey Health Connect					▲		
EMRX – SJ	△						
Trenton				▲			
MOHIE					▲		

Sources:
1. eHI 2011 Report on Health Information Exchange The Changing Landscape
2. New Jersey Stakeholder Assessment and Environmental Scan Foundation Phase 3 – Aug 28, 2011

Use Cases

Use Case Name	Description
1. Medication History	Patient medication histories are made available for Emergency Room admissions only. This Use Case will include the Cross Community Patient Discovery (XCPD) Profile to support accurate patient identification.
2. Public Health Data (Immunization Data)	To provide patient immunization history directly to the physician EHR. The State registry connection will be direct to the physician EHR.
3. Diagnostic Results Available to All HIE Customers	To provide patient laboratory test and radiology images results (later Use Case will address the Order side as well as open order/pending result). This Use Case will include the radiology report and not the image.
4. ED/Acute Discharge Summary	The transfer of patient information in the form of discharge notes to the PCP or specialists at the time of discharge. Near term – ED/Acute Hospital discharge information only.
5. Transition of Care- Referral Information	This Use Case is to enhance communications between PCP and specialist with an opportunity to use "Direct" as a near-term way to conduct secure exchange of health information.

New Jersey Hospitals Summary – HIOs

New Jersey Hospitals by Type				
	Total [1]	Currently Part of HIO	Planned to be Part of HIO	Gap
Acute Care	71	44	1	26
Specialty	16	0	0	16
Rehabilitation	14	1	0	14
Psychiatric	10	0	0	10
Grand Total	111	45	1	66

Source:
1. NJ Dept of Health and Senior Services Oct 2011

New Jersey Healthcare Providers[1]

New Jersey Healthcare Providers (Active)

Provider Type	Address of Record in NJ	Total
Licensed Medical Doctors (MDs)	23,866	30,225
Licensed Doctors of Osteopathy (DOs)	2,953	3,615
TOTAL MDs and DOs	**26,819**	**33,840**

BME Survey (Includes only MDs and DOs): Do you use electronic health records (EHR) at any of your practice locations?

Survey Participants	Count	% of Total
Answered: "Yes"	8,330	24.6%
Answered: "No"	7,386	21.8%
- Plan to implement within 1 year	1,996	5.9%
- Plan to implement within 2 years	1,215	3.6%
- Plan to implement within 3 - 5 years	1,159	3.4%
- Never	1,283	3.8%
- No answer	1,733	5.1%
Did Not Respond	13,374	39.5%

Source:
1. NJ Board of Medical Examiners

NJ Primary Care Physicians by County

County	Population	PCPs in Patient Care
Atlantic	270,609	244
Bergen	889,915	1,527
Burlington	445,492	434
Camden	517,739	626
Cape May	96,470	42
Cumberland	156,784	94
Essex	767,075	1,191
Gloucester	288,168	189
Hudson	592,111	506
Hunterdon	129,806	279
Mercer	364,571	490
Middlesex	785,324	1,242
Monmouth	641,864	984
Morris	486,946	717
Ocean	569,662	336
Passaic	488,364	457
Salem	66,194	36
Somerset	323,160	587
Sussex	151,431	77
Union	521,816	551
Warren	109,897	117
NJ TOTAL	**8,663,398**	**10,726**

County Health Rankings 2011

Primary care physicians include practicing physicians specializing in general practice medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the population per one provider.

The data on primary care physicians were obtained from the Health Resources and Services Administration's Area Resource File (ARF) for 2009. The ARF data on practicing physicians come from the AMA Master File (2008), and the population estimates are from the U.S. Census Bureau's 2008 population estimates.

County Health Rankings (CHR) Web site. CHR is a program of the Robert Wood Johnson Foundation (RWJF) and the University of Wisconsin Population Health Institute.

EHR Adoption

EHR Adoption

Metric	Actual	Target	Variance	Notes / Status / Last Updated
Physicians (MDs and DOs) Using an EHR system at Any Practice Location	8,330	33,840	25,510	Last Updated: Aug. 2011.
% NJ Physicians Using an EHR	24.6%	100%	75.4%	Last Updated: Aug. 2011.
Total Hospitals Adopting EHRs	*73*	111	*38*	*All acute care facilities have some form of EHR. Currently defining specific adoption criteria.*
Hospital Adoption %	*65.8%*	*100%*	*34.2%*	*All acute care facilities have some form of EHR. Currently defining specific adoption criteria.*
Hospital EMR Adoption Model Scores by State (NJ)	3.43	7.0	3.57	Ranked 15th out of 51 States HIMSS Analytics™ Database 3rd Quarter 2011.
# of Long Term Care Facilities Adopting an EHR system	*TBD*	*782*		*Data sources to be identified. Currently defining specific adoption criteria.*
# of Behavioral Health Centers Adopting an EHR system	*TBD*	*TBD*		*Data sources to be identified. Currently defining specific adoption criteria.*
# of Ambulatory Care Centers Adopting an EHR system	*TBD*	*908*		*Data sources to be identified. Currently defining specific adoption criteria.*

Red Italics - Further validation required

EHR Incentive Program Payments

Medicare

Medicare EHR Incentive Payment		
Provider Type	**Provider Count**	**Medicare Incentive Payment Amount**
Eligible Professionals	374	$6,732,000
Eligible Hospitals	8	$21,786,316
	Total:	**$28,518,316**

New Jersey Medicaid

New Jersey Medicaid EHR Incentive Payments		
Provider Type	**Provider Count**	**Medicare Incentive Payment Amount**
Eligible Professionals	N/A	N/A
Eligible Hospitals	N/A	N/A
	Total:	**N/A**

New Jersey Medicaid EHR Incentive Program (http://www.nj.gov/njhit/ehr/)
- Launched: Nov. 7, 2011
- Attestation Available: Dec. 19, 2011
- Payments: Jan. / Feb. 2012

- Registrants: 360 Eligible Professionals, 45 Eligible Hospitals

NJ HIT Program Focus for 2011+

□ = Completed

Phase 7:
Personal and National
- Disease Management
- Syndromic Surveillance
- Full EHR Adoption
- Connect NHIN
- Interstate Exchange
- Meaningful Use Phase 3

2013

2012 Q1-Q4

Phase 6:
Focus on Exchange
- Data Exchange and Analytics
- State HIE
- State Health Registries
- Long term Care Integration
- Behavioral Health Integration
- Meaningful Use Stage 2

2011 Q4 – 2012 Q1

Phase 5: Implementation
- Implement Financial Sustainability
- HIE Trust Agreements
- Medicaid Incentive Payments
- Establish NJHIN
- HIO Connection
- Research pilots
- PHR Focus
- SHARE (State HIE)

Consumer & Stakeholder Outreach

EHR Adoption

Enabling New Jersey Health Information Exchange

Phase 1: Strategy
- ✓ Planning
- ✓ Funding Request
- ✓ Strategic Planning
- ✓ Organizational Structure

Phase 2: Planning
- ✓ Funding
- ✓ Governance
- ✓ HIE Initial Build
- ✓ Policies
- ✓ Initial Stakeholder Outreach
- ✓ Operational Plan
- ✓ State Medicaid HIT Plan

Phase 3: Foundation
- ✓ Standing Up Regional HIEs
- ✓ Architecture & Standards
- ✓ Quality Measures
- ✓ Legal Framework
- ✓ Use Cases for Care Coordination

2011 Q1 Q2

Phase 4: Framework
- ✓ Design Financial Sustainability
- ✓ Medicaid Incentive Program and Meaningful Use Stage 1
- ✓ NJHIN Planning
- ✓ Use Case Development #1-5
- • Legislation and Regulation

2011 Q2 –Q4

HIT Workforce Development in NJ
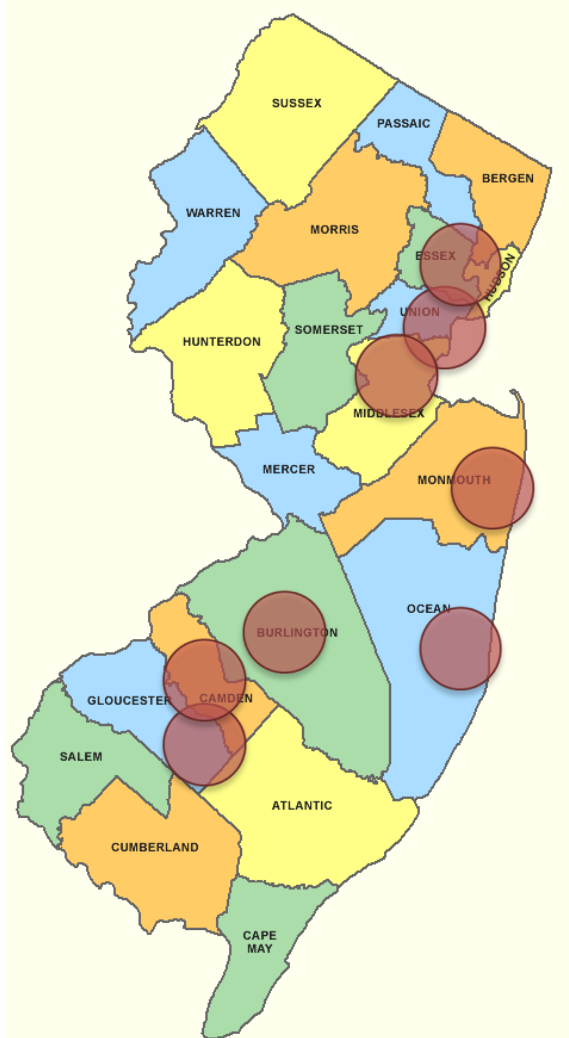
Eight Community Colleges in New Jersey Part of ONC-funded Development

- [Brookdale Community College](#) Lincroft, NJ
- [Burlington County College](#) Pemberton, NJ
- [Camden County College](#) Blackwood, NJ
- [Essex County College](#) Newark, NJ
- [Gloucester County College](#) Sewell, NJ
- [Ocean County College](#) Toms River, NJ
- [Passaic County Community College](#) Paterson, NJ
- [Raritan Valley Community College](#) Branchburg, NJ

Community College Consortia Statistics[1]	
Participating Community Colleges	8
Currently Enrolled Students	635
Program Graduates	329
Program Graduates Employed in HIT	96

Questions?

Reference:

www.nj.gov/njhit